



January 2005

Articulation and Student Transfer: Course Equivalency (House Bill 2382)

Executive Summary

House Bill 2382, passed in 2004, requires the Higher Education Coordinating Board to “create a statewide system of course equivalency for public institutions of higher education,” with a progress report due January 10, 2005, detailing options and cost estimates. The 2004 HECB Strategic Master Plan includes an implementation strategy for a statewide web-based course equivalency system, and the HECB has requested funding for the system in its agency budget request.

Many other states have developed web-based course equivalency systems to expedite student transfer. These systems allow students to determine how courses taken at one institution will be accepted at another institution. Fully developed systems also allow students to upload their electronic transcripts for evaluation against degree requirements, provide electronic transcript exchange among institutions, and alert faculty when they need to make decisions regarding course equivalencies.

Five of the six public four-year institutions in Washington have developed, or are in the process of developing, their own web-based systems that enable students to understand how the courses they have taken will apply to their degrees. However, no statewide system exists that would allow transfer students to go to one site for degree planning and transcript evaluation.

In 2004, HECB staff assembled a work group comprised of representatives from two-year and four-year, public and private institutions. The group developed a list of requirements for a statewide system, and investigated three options for meeting those requirements. It is the consensus of the work group that Washington students would benefit from a statewide web-based transfer system.

This report will be referred next to the higher education committees of the Legislature for consideration. Funding for this system was not included in Governor Locke’s proposed 2005-07 operating budget. If funding is approved during the 2005 legislative session, the HECB will issue a formal Request for Proposal, develop more detailed specifications, select a course equivalency system option, and work with the Department of Information Services to meet state requirements for developing the system.

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Background

House Bill 2382, passed by the 2004 Legislature, requires the Higher Education Coordinating Board (HECB) to *“create a statewide system of course equivalency for public institutions of higher education, so that courses from one institution can be transferred and applied toward academic majors and degrees in the same manner as equivalent courses at the receiving institution. The higher education coordinating board must make a progress report on the development of the course equivalency system to the higher education committees of the Senate and House of Representatives by January 10, 2005. The report must include options and cost estimates for ongoing maintenance of the system.”*

The idea of developing a statewide advising system to assist transfer students has support from stakeholders at the state and institution levels. The 2004 Strategic Master Plan for Higher Education advocates for an on-line (web-based) advising system to help community college students quickly and easily transfer to the four-year colleges and universities. The Joint Access Oversight Group (JAOG) also has formally supported the development of a statewide system to facilitate transfer. JAOG is a voluntary group representing academic leadership from the public two-year and four-year colleges and universities, with participation by the private colleges and universities.

The strong support for a statewide advising system reflects the increasing use of transfer as a route to a bachelor’s degree. As tuition continues to rise at the baccalaureate institutions, transfer from a two-year college to a four-year college or university represents an affordable option for thousands of students each year. In fact, the number of students transferring in Washington increased almost 10 percent last year, with 15,366 students transferring from community and technical colleges in 2003-04, compared to 14,007 students transferring in 2002-03. The independent colleges and universities enroll about 26 percent of the transfer students in the state.¹

While transfer students may access individual institution’s Web sites and advising staff for information, they cannot access the many options available in Washington quickly and easily at one location. Many states (e.g. Maryland, Illinois, Arizona, Ohio) have developed Web sites with state funding, which allow students to use automated systems in planning their route to a bachelor’s degree. These systems help to reduce expensive mistakes for students (and the state)

¹State Board for Community and Technical Colleges, 2003-04 Academic Year Report, “Student Progress and Success”

by clearly outlining which credits can be transferred and which can apply to specific majors. Students can consult these automated systems at their convenience and investigate a variety of planning scenarios. For example, a student planning to major in a particular area who fails an important course can view how other credits they have earned might apply to a different major or a different college.

To investigate options for a statewide on-line advising system, HECB staff convened a work group in 2004 that included staff and faculty from both two-year and four-year public and private colleges and universities. The work group met five times and reviewed various Web-based advising systems developed in other states, and systems offered for purchase by vendors. Appendix A contains a list of work group participants.

The work group developed the following list of requirements and requested features for the Web-based system:

Web-based system requirements:

- 1) Interactive, web-accessible course equivalency tables (crosswalks that translate one course to another at different institutions);
- 2) degree audit (the ability to evaluate courses a student has completed or plans to complete based on degree requirements);
- 3) faculty communication (a vehicle for faculty to communicate online regarding course equivalency decisions);
- 4) interaction among existing systems (the ability to reduce additional work for institutions by electronically interfacing with degree audit systems already in place);
- 5) a Web-based survey for soliciting and collecting student feedback on the effectiveness of the system; and
- 6) the ability to send and receive electronic transcripts between institutions, and allow students to upload their electronic transcript for evaluation against various degree requirements.

Additional features of a Web-based system:

- 1) User-friendliness and a unified statewide “look and feel;”
- 2) capacity to link to a degree audit system developed by Washington community colleges, and accept both individual courses and a “package” of courses (such as an associate transfer degree) from community college transfer students;
- 3) inclusion of a comprehensive list of the degree programs offered in the state by both public and private colleges and universities, and “tips” to help transfer students plan; and
- 4) accommodation of start and end dates for courses and degree programs to reflect changing course content and degree requirements.

The options explored by the work group focused on technical solutions only, interpreting the word “system” in the legislation to mean an automated system. The group did not explore common course numbering, since common course numbering is not a technical solution, and since bill language requiring common course numbering was introduced and subsequently deleted during the 2004 legislative session.²

² The fiscal impact of implementing a common course numbering system in Washington was estimated at \$494,050 for the 2003-05 biennium.

House Bill 2382 specifies student transfer among public institutions, but includes a provision that the work group “may include representatives from independent four-year institutions.” The Independent Colleges of Washington (ICW) participated in the work group, and expressed interest in participating in a statewide system. Therefore, information about including the ICW colleges in the statewide system is provided in this report.

House Bill 2382 also directs the group to “identify equivalent courses between community and technical colleges and public four-year institutions and among public four-year institutions, including identifying how courses meet requirements for academic majors and degrees.” The work group, therefore, investigated options for facilitating transfer from a two-year college to a four-year institution, and from a four-year institution to another four-year institution. The public community colleges, represented on the work group, emphasized a third type of transfer: students who transfer from one two-year college to another two-year college to earn their associate degrees, and then transfer to a four-year college. Estimated costs to accommodate this type of transfer are included later in this report.

Existing Systems in Washington

Transfer course lists or equivalency crosswalks

Washington does not require common course numbering among the public institutions. For example, a course titled “Math 201” at one college could be equivalent to “Math 205” at another college. Each of the six public baccalaureate institutions has developed some type of transfer course list or equivalency crosswalk. These lists and crosswalks help students learn how a course taken at one college would be accepted at another college.

Western Washington University provides lists of courses that students are allowed to transfer from two-year and four-year public colleges and universities in the state. WWU also provides information about how these transferable courses will apply to a limited set of majors and degree requirements.

The Evergreen State College has developed written documentation for students that explains how associate degrees and two-year college courses will apply toward degree requirements at Evergreen.

Central Washington University provides lists of course equivalency crosswalks, which list course names and numbers from other institutions, along with their equivalent name(s) and number(s) at Central. Central also provides written documentation to students explaining CWU’s policies for accepting credits from other institutions toward degree requirements.

The University of Washington, Washington State University, and Eastern Washington University have developed online interactive crosswalks, where a student can use a menu on a Web page to enter a course name and number and receive its equivalent at another four-year institution.

Washington State University, Central Washington University, and Western Washington University include course equivalency crosswalks for other four-year institutions in the state. The remaining three public four-year institutions only include course equivalency crosswalks for the two-year colleges in the state.

The private sector inventory collected for this report includes the colleges and universities represented by the Independent Colleges of Washington (ICW). Of those colleges, Gonzaga and Pacific Lutheran University have developed interactive crosswalks. Seattle Pacific University is currently developing an interactive crosswalk. Seattle University, Whitworth College, and the University of Puget Sound publish equivalency crosswalk tables on their Web sites, but they are not interactive. HECB staff could not find any crosswalks (interactive or non-interactive) on the Web sites of Heritage University, St. Martin's College, Walla Walla College, or Whitman College. None of the private sector colleges have developed course equivalency crosswalks for other four-year institutions in the state.

Degree audit

Degree audit systems enable a student to evaluate how courses fulfill degree requirements. The University of Washington and Washington State University use an automated degree audit system purchased from a vendor called "DARS" (Degree Audit Reporting System). Eastern Washington University is currently transitioning to DARS. Central Washington University uses PeopleSoft. Western Washington University is currently transitioning to an interactive degree audit system purchased from Sungard. The Evergreen State College does not have an interactive degree audit system.

The ICW institutions use a variety of different degree audit systems: Datatel (Seattle University, Whitman, and Whitworth); and Sungard/Banner (Walla Walla College, Pacific Lutheran University, and Gonzaga University). The University of Puget Sound has developed its own Oracle-based system. Seattle Pacific University is developing its own system, expected to be available in March 2005. Heritage University and St. Martin's College do not have an online degree audit system.

The community and technical college system has purchased a degree audit system, which will allow a student to evaluate how courses taken at one two-year college would apply to an associate degree at that college. This system, developed by Bellevue Community College, has been enhanced to accommodate the other public two-year colleges.

Electronic transcripts

Each four-year institution has the capability to receive electronic transcripts from Washington community colleges, but only four (the University of Washington, Washington State University, Eastern Washington University, and Western Washington University) currently do so. The remaining public and private four-year institutions could receive electronic transcripts from Washington community colleges, but this would require extensive technical work. A fully implemented system in Washington would allow both two-year and four-year institutions (public and private) to send and receive electronic transcripts. Ideally, a national standard for transcript formats would be used so that transcripts could be sent and received among colleges in other states. The community colleges do not currently format their electronic transcripts according to a national standard, nor do the electronic transcripts include information about completed associate transfer degree packages.

Faculty communication/course equivalency decisions

None of the higher education institutions in the state have developed a system to automate faculty communication regarding course equivalency decisions. Currently, staff at the baccalaureate institutions manually review each community college catalog for changes to course descriptions.

If a change is found, then the four-year institution staff re-evaluate the course and inform community college staff if the course's equivalency status has been changed. This process is time-consuming and inefficient in terms of staff resources.

Arizona has developed an automated routing system for course equivalency decisions. When a course needs to be re-evaluated, emails are sent to defined groups, and decisions about the course can be tracked online. The University of Washington is currently working to obtain the Arizona system for its own use.

Student feedback

The institutions typically collect student feedback via alumni surveys. However, no college systematically collects feedback online specifically from transfer students.

Options

The work group considered three options for a statewide system. Two of the options are available for purchase. The third option would require hiring or contracting with programming staff to develop a customized system for the state. Summaries of these options are provided below:

Option 1: A statewide system that requires each institution receiving transfer students to enter and maintain degree requirements in addition to degree audit systems it might currently maintain. This option is currently used in two states.

Pros:

- User-friendly from a student perspective: This option allows students to compare how their credits would transfer to different majors and institutions and view the comparisons side-by-side.
- The output is fairly easy to read and presents a unified look and feel to students.
- Includes a feature for online faculty communication regarding course equivalency decisions.
- Includes the capability for routing electronic transcripts using a national formatting standard.
- Students can upload their entire transcript for evaluation.
- Includes a feature for gathering student feedback.
- Could be implemented in six to twelve months.

Cons:

- This option requires each institution to manually enter its degree requirements and maintain this information separately from any degree audit system it might currently maintain. Although this option does include some electronic loading of data, it does not automatically interface with existing systems on an ongoing basis.
- Attachments are limited to a text file format. When faculty communicate about course decisions, they need to be able to send attachments in different formats.
- If a course is no longer offered, it can be stored as an "inactive" course, or the start and end dates can be stored as comments. Members of the work group would prefer that the start and end dates for courses be built into the system.

Option 2: A statewide system that interfaces with the degree audit systems in place at each institution. This option is currently used by the University of Washington, as well as institutions in eight other states. It is also being implemented by institutions in four other states.

Pros:

- Is efficient from an institutional perspective, since it interfaces with degree audit systems already in place and eliminates duplication of effort.
- Would interface easily with the systems in place at the baccalaureate institutions.
- Includes start and end dates for courses built into the system.
- Includes a feature for gathering student feedback.
- Includes the ability for students to upload electronic transcripts for evaluation.
- Could be implemented in six to twelve months.

Cons:

- Output can be difficult to read for students (although enhancements are planned).
- Does not present a statewide “look and feel” (although enhancements are planned).
- Does not include the capability for online faculty communication regarding course equivalency decisions. Other states using this option have developed their own applications to accommodate course equivalency discussions.
- Does not currently include electronic transcript exchange between institutions, although the vendor expects these options to be available in early 2005.

Option 3: A customized system developed by the state. A third option is to hire or contract with programming staff or a consultant to develop a system for the state. The programming staff could potentially come from college campuses or the Center for Information Resources with experience in developing similar systems.

Pros:

- Unlimited flexibility: Options #1 and #2 can be modified when there is consensus from all of their users. However, a state-developed system could be customized to fit our state’s needs and scheduling requirements. The complex grading rules and academic policies among the campuses (e.g. repeated courses, counting physical education credits) make a customized system very attractive. A customized system could also be tailored to interface with each institution's existing degree audit system, increasing institutional efficiencies.
- The elimination of one-time licensing fees and annual maintenance fees.

Cons:

- A longer time frame for implementation: This option would require hiring two computer programmers over a period of two years. Options #1 and #2 could be implemented in six months to one year; while Option #3 will take two years to fully implement.

Costs

As required by HB 2382, the following table summarizes the estimated cost requirements for each option, by biennium, for implementation and maintenance of a system that would include transfer between the two-year and four year public colleges, and among the four-year public colleges. The costs include electronic transcript exchange and reformatting, program licensing (with a 5 percent increase per year in price assumed), staff at the state and institution level, interfaces to existing degree audit systems (if necessary), training, travel and marketing, and hardware and software.

Estimated Costs for a Statewide System

(Public Institutions: Two-Year to Four-Year Transfer, and Four-Year to Four-Year Transfer)

Option	2005-07	2007-09	2009-11	Nine Year Total
#1	\$2,974,680	\$1,587,180	\$1,607,433	\$6,169,293
#2	\$2,136,872	\$1,278,034	\$1,286,485	\$4,701,391
#3	\$2,173,080	\$1,195,580	\$1,195,580	\$4,116,240

Reasons for cost variations

Option #1 is the most expensive because the vendor includes in its license the ability for all institutions in the state to participate, both public and private, for all types of transfer. Option #2 only includes pricing for the public four-year colleges to participate as receiving institutions for students from other colleges. In other words, it does not include transfer between two-year public colleges, and it does not include the independent four-year colleges and universities as receiving institutions.

Option #1 also requires more staffing than the other two options, as each institution receiving transfer students would need to update and maintain its degree requirements in a separate system. Option #2 includes fees for developing interfaces between the new state system and existing degree audit systems at the institutions. Option #3 does not include any licensing fees but instead includes funding for a contract with two programmers who would work to develop a customized system for the state over a two-year period.

If the costs to develop transfer among the four-year institutions were removed from the budget, approximately \$576,000 could be subtracted for the 2005-07 biennium costs listed above, bringing them more in line with the \$1.6 million originally requested in the HECB 2005-07 agency budget for a statewide on-line advising system.

Accommodating Other Types of Transfer

The previous sections of this report have described costs for a system that would allow students to access an automated statewide system providing information for transfer from a single two-year college to a single baccalaureate institution. However, students also transfer from multiple two-year institutions to a four-year institution. In addition, approximately 26 percent of all students who transfer from a two-year institution transfer to an independent baccalaureate institution.³ The following sections describe the additional costs required to accommodate these types of transfer.

Additional costs to accommodate transfer among multiple two-year colleges to a four-year college

The State Board for Community and Technical Colleges (SBCTC) estimates that it will cost an additional \$100,000 to modify their own degree audit system to accommodate students who transfer between the two-year colleges to earn an associate degree, and then to a four-year institution to earn a bachelor's degree. In addition, the SBCTC estimates that \$400,000 would be required to fund the staff work necessary to develop course equivalencies and associate degree templates. In addition, 1.0 FTE would be required at the state board level to oversee implementation and maintenance for each option. These costs will be incurred regardless of which option is purchased for a statewide system.

Options #1 and #3 would not require additional license fees, but Option #2 would charge additional licensing fees to accommodate transfer among multiple two-year colleges.

Estimated Additional Costs

(Public Institutions: Transfer among Multiple Two-Year Institutions to a Four-Year Institution)

Option	2005-07	2007-09	2009-11	Nine Year Total
#1	\$666,400	\$166,400	\$166,400	\$999,200
#2	\$934,464	\$250,909	\$259,572	\$1,444,945
#3	\$681,400	\$166,400	\$166,400	\$1,014,200

Additional cost to include the Independent Colleges of Washington

Assuming that the independent colleges would provide separate funding for staff, interfaces, and any programming necessary to exchange electronic transcripts, the only additional cost to include the independent colleges would be incurred by Option #2, which charges an additional licensing fee based on student headcount. The additional fees would be as follows (assuming a 5 percent increase per year).

Estimated Additional Costs

Independent Colleges of Washington (ICW)

Option	2005-07	2007-09	2009-11	Nine Year Total
#1	\$0	\$0	\$0	\$0
#2	\$122,934	\$45,349	\$49,997	\$313,626
#3	\$0	\$0	\$0	\$0

Does not include staffing, programming, or interfaces

³ Eleven percent of these students transfer to colleges represented by the Independent Colleges of Washington; the remainder transfer to the University of Phoenix, City University, and other for-profit independent institutions.

Summary and Next Steps

The Higher Education Coordinating Board's 2005-07 agency budget request included \$1.1 million for the first year of a statewide advising system, with \$550,000 requested for subsequent years. This request did not include the costs to include the private colleges or to accommodate modifications for transfer from multiple two-year colleges.

If the state provides funding for this project, the next step in the process would be to develop detailed system specifications, and conduct a formal Request for Proposal (RFP). Through the RFP process, a vendor or contract would be selected. HECB staff will work closely with Department of Information Services staff to fulfill the state's requirements for making an investment in information technology.

The work group, and others who have been involved with this project, have unanimously agreed that our state needs a statewide transfer advising system. While it is not possible to place a dollar value on the benefit of early, accurate advising and planning, anecdotes from experts in other states confirm that their statewide systems are well worth the investment, as they promote efficient transfer with a minimal loss of credits.

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